

# Pricing Events – October 2008

December 2, 2008

MPWG



## 1. Overview

## 2. Discussion

- High-price hours
- Low-price hours
- Prices compared to uplifts
- Negative MCP
- MCP Volatility
- Operating reserve pricing and activations
- Demand response programs
- Administered pricing
- Emergency control actions

- Average Hourly Ontario Demand: 15638 MW
  - Minimum: 11450 MW
  - Maximum: 19366 MW
- Total Ontario Demand: 11.634 TWh
- Average Net Exports: 1083 MW
- Average HOEP: \$ 45.27 /MWh
  - Peak: \$ 55.87 /MWh
  - Off-peak: \$ 35.87 /MWh
- Average OR Prices
  - 10S: \$ 4.33 /MW/hr
  - 10N: \$ 3.84 /MW/hr
  - 30R: \$ 3.04 /MW/hr
- Wind Generation: 162.4 GWh
  - Output: 130.2 GWh (Capacity: 37%) from fully in-service projects

# Hours with HOEP > \$200

Date	Hour	HOEP	Issue(s)
October 8	17	\$ 272.88	<ul style="list-style-type: none"> <li>• Under forecast of demand of 720 MW</li> <li>• Under performance of self-scheduled generators of 82 MW</li> </ul>
October 24	19	\$ 235.85	<ul style="list-style-type: none"> <li>• Breaker outage resulting in 880 MW loss of generation</li> <li>• Failed net imports of 140 MW</li> <li>• Under forecast of demand of 170 MW</li> <li>• Derating of 100 MW</li> </ul>
October 27	8	\$ 294.56	<ul style="list-style-type: none"> <li>• Under forecast of demand of 630 MW</li> <li>• Derating of 325 MW</li> <li>• Under performance of self scheduling generators of 120 MW</li> </ul>

- There were 84 hours in October where HOEP was below \$20
- Of these, there were 2 hours with negative HOEP

Date	Hour	HOEP
October 13	2	- \$ 8.73
October 13	3	- \$ 3.31

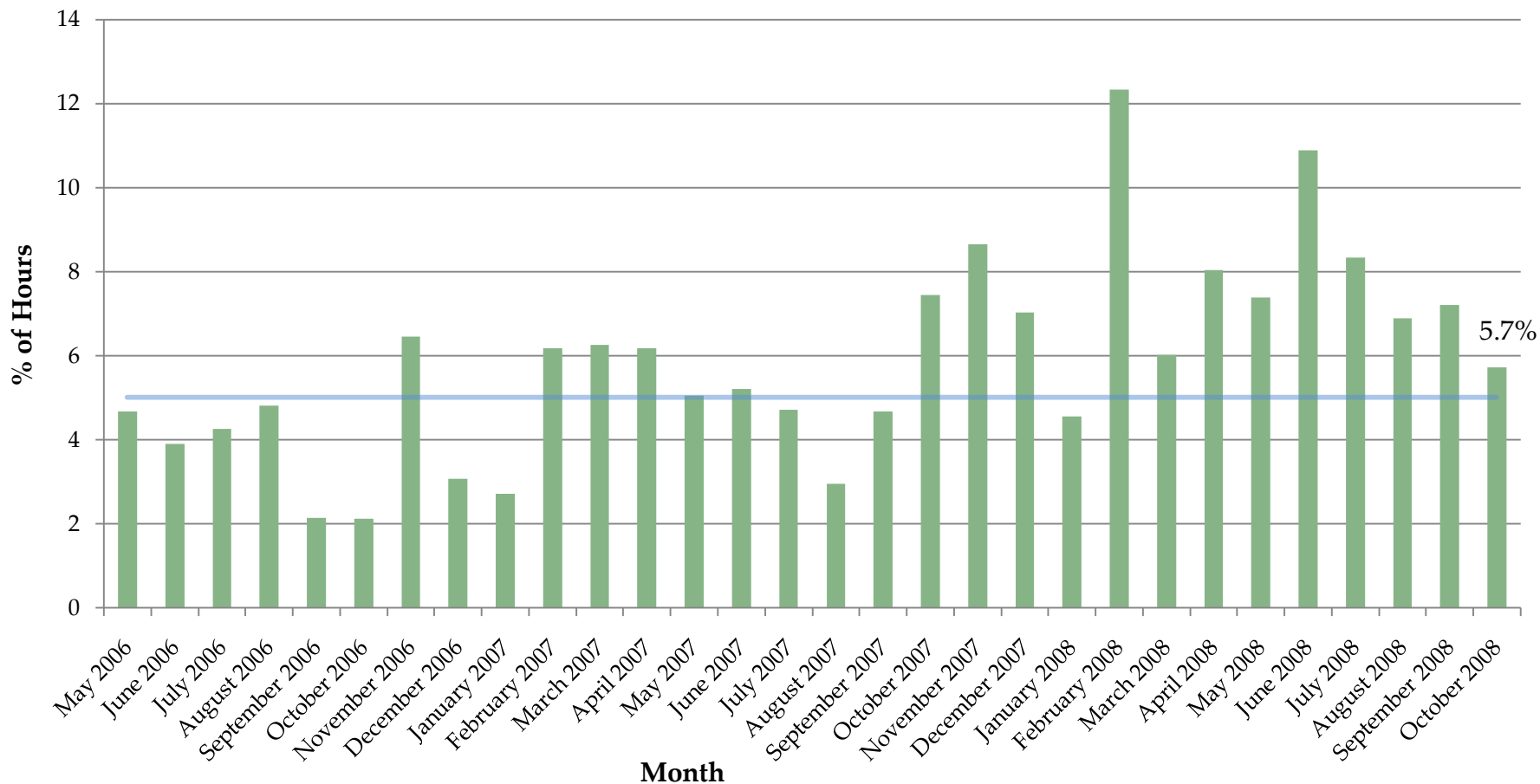
Date	Hour	HOEP	Uplift
October 5	2	\$ 4.63	\$ 7.05
October 13	2	-\$ 8.73	\$ 1.04
October 13	3	-\$ 3.31	\$ 1.90

- The Market Surveillance Panel has amended its standard for investigating anomalous pricing events
  - \$500 000 CMSC or IOG payments in an hour
  - \$1 000 000 CMSC or IOG payments on an intertie in a day
  - \$100 000 OR payments in an hour
- Thresholds determined by an analysis of the distribution of previous events
- No such events in October

Date	Hour(s)	# Negative MCPs	Issue
October 12	24	2	<ul style="list-style-type: none"><li>• Surplus baseload generation</li><li>• 237 MW over-performance of self-scheduled generation</li></ul>
October 13	2 & 3	15	<ul style="list-style-type: none"><li>• Surplus baseload generation</li><li>• Low Ontario demand: 11,500 MW</li></ul>

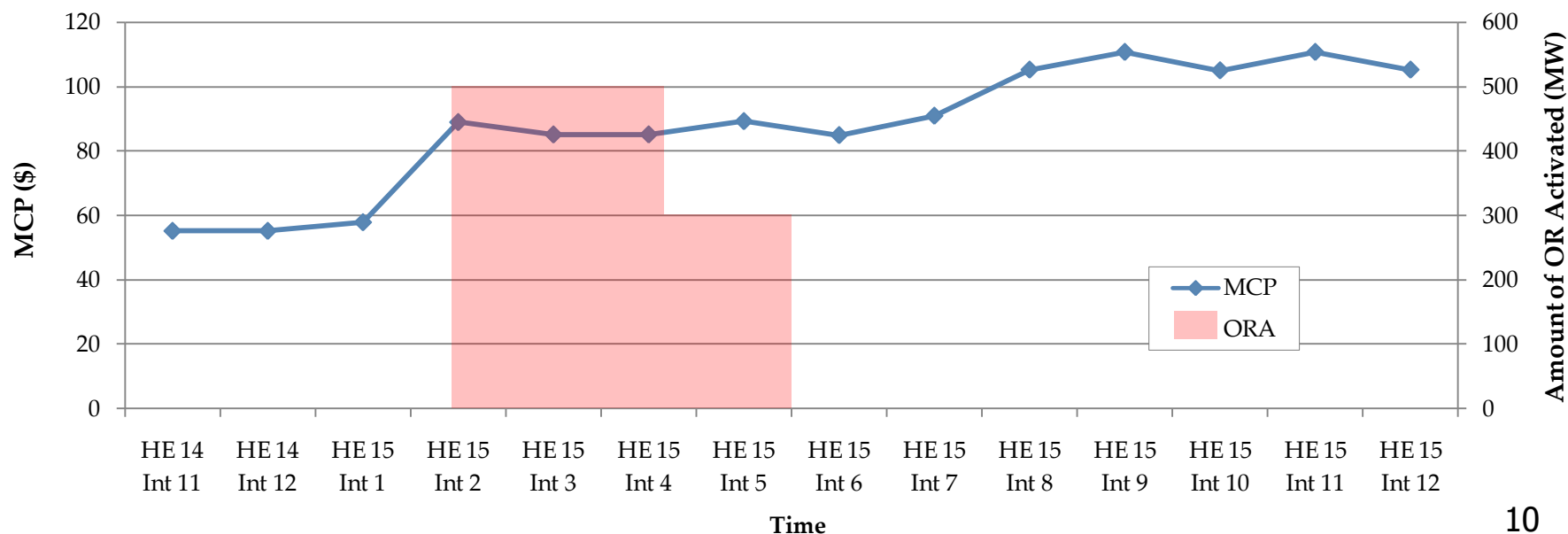
- To measure MCP volatility we calculate the proportion of current period interval-to-interval price changes that exceed certain thresholds
  - Thresholds constructed using previous 4 years of monthly data
  - Capture 95% of historical interval-level price changes
- If current month's prices are equally volatile to the average of the same month in the 4 previous years, value will be 5%
  - Value will be higher if prices are more volatile than in previous years

## % of Hours Falling Outside Historical 95% Bounds



- 20 hours with OR activations
- Largest activation occurred on Friday 24 at 14:08
  - 500 MW OR activated, along with 475 MW SAR
  - Cause: approximately 930 MW of generation loss
  - Duration: 17 minutes

### OR Activation Timeline



- DR3 Program Activations: 2
- 6 events required administered pricing
  - 19 intervals due to planned outages
  - 2 intervals due to input data problems
- There were no emergency control actions in October